

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/724,274
Source: I Fw6
Date Processed by STIC: 11-17-04

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 11/17/2004

PATENT APPLICATION: US/10/724,274

TIME: 09:39:00

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw

3 <110> APPLICANT: Protein Design Labs, Inc.
 4 Ramakrishnan, Vanitha
 5 Powers, David
 6 Johnson, Dale E
 7 Jeffry, Ursula
 8 Bhaskar, Vinay
 10 <120> TITLE OF INVENTION: Chimeric and Humanized Antibodies to alpha5beta1 Integrin
 That
 11 Modulate Angiogenesis
 13 <130> FILE REFERENCE: 05882.0178.NPUS01
 15 <140> CURRENT APPLICATION NUMBER: 10/724,274
 16 <141> CURRENT FILING DATE: 2003-11-26
 18 <150> PRIOR APPLICATION NUMBER: 60/429,743
 19 <151> PRIOR FILING DATE: 2002-11-26
 21 <150> PRIOR APPLICATION NUMBER: 60/508,149
 22 <151> PRIOR FILING DATE: 2003-09-30
 24 <160> NUMBER OF SEQ ID NOS: 45
 26 <170> SOFTWARE: PatentIn version 3.2
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 124
 30 <212> TYPE: PRT
 31 <213> ORGANISM: mus musculus
 33 <400> SEQUENCE: 1
 35 Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
 36 1 5 10 15
 39 Ser Leu Ser Ile Thr Cys Thr Ile Ser Gly Phe Ser Leu Thr Asp Tyr
 40 20 25 30
 43 Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
 44 35 40 45
 47 Val Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
 48 50 55 60
 51 Ser Arg Met Thr Ile Arg Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
 52 65 70 75 80
 55 Ile Met Asn Ser Leu Gln Thr Asp Asp Ser Ala Met Tyr Tyr Cys Ala
 56 85 90 95
 59 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
 60 100 105 110
 63 Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
 64 115 120
 67 <210> SEQ ID NO: 2
 68 <211> LENGTH: 124
 69 <212> TYPE: PRT
 70 <213> ORGANISM: artificial
 72 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/724,274

DATE: 11/17/2004

TIME: 09:39:00

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw

```

73 <223> OTHER INFORMATION: humanized antibody
75 <400> SEQUENCE: 2
77 Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Gln Pro Gly Gly
78 1          5          10          15
81 Ser Leu Arg Ile Ser Cys Ala Ile Ser Gly Phe Ser Leu Thr Asp Tyr
82          20          25          30
85 Gly Val His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
86          35          40          45
89 Val Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
90          50          55          60
93 Ser Arg Met Thr Ile Ser Lys Asp Asn Ser Lys Ser Thr Val Tyr Leu
94 65          70          75          80
97 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Met Tyr Tyr Cys Ala
98          85          90          95
101 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
102          100          105          110
105 Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
106          115          120
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 124
111 <212> TYPE: PRT
112 <213> ORGANISM: artificial
114 <220> FEATURE:
115 <223> OTHER INFORMATION: humanized antibody
117 <400> SEQUENCE: 3
119 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
120 1          5          10          15
123 Ser Leu Arg Ile Ser Cys Ala Ile Ser Gly Phe Ser Leu Thr Asp Tyr
124          20          25          30
127 Gly Val His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
128          35          40          45
131 Val Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
132          50          55          60
135 Ser Arg Met Thr Ile Ser Lys Asp Asn Ser Lys Asn Thr Val Tyr Leu
136 65          70          75          80
139 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
140          85          90          95
143 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
144          100          105          110
147 Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
148          115          120
151 <210> SEQ ID NO: 4
152 <211> LENGTH: 124
153 <212> TYPE: PRT
154 <213> ORGANISM: artificial
156 <220> FEATURE:
157 <223> OTHER INFORMATION: humanized antibody
159 <400> SEQUENCE: 4
161 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/724,274

DATE: 11/17/2004

TIME: 09:39:00

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw

```

162 1          5          10          15
165 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu Thr Asp Tyr
166          20          25          30
169 Gly Val His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
170          35          40          45
173 Ser Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
174          50          55          60
177 Ser Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
178 65          70          75          80
181 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
182          85          90          95
185 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
186          100          105          110
189 Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
190          115          120
193 <210> SEQ ID NO: 5
194 <211> LENGTH: 124
195 <212> TYPE: PRT
196 <213> ORGANISM: artificial
198 <220> FEATURE:
199 <223> OTHER INFORMATION: humanized antibody
201 <400> SEQUENCE: 5
203 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
204 1          5          10          15
207 Ser Leu Arg Leu Ser Cys Ala Ile Ser Gly Phe Ser Leu Thr Asp Tyr
208          20          25          30
211 Gly Val His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
212          35          40          45
215 Val Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
216          50          55          60
219 Ser Arg Met Thr Ile Ser Lys Asp Asn Ser Lys Ser Thr Val Tyr Leu
220 65          70          75          80
223 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
224          85          90          95
227 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
228          100          105          110
231 Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
232          115          120
235 <210> SEQ ID NO: 6
236 <211> LENGTH: 124
237 <212> TYPE: PRT
238 <213> ORGANISM: artificial
240 <220> FEATURE:
241 <223> OTHER INFORMATION: humanized antibody
243 <400> SEQUENCE: 6
245 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
246 1          5          10          15
249 Ser Leu Arg Ile Ser Cys Ala Ile Ser Gly Phe Ser Leu Thr Asp Tyr
250          20          25          30

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/724,274

DATE: 11/17/2004

TIME: 09:39:00

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw

```

253 Gly Val His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
254      35      40      45
257 Val Val Ile Trp Ser Asp Gly Ser Ser Thr Tyr Asn Ser Ala Leu Lys
258      50      55      60
261 Ser Arg Met Thr Ile Ser Lys Asp Asn Ser Lys Ser Thr Val Tyr Leu
262 65      70      75      80
265 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Met Tyr Tyr Cys Ala
266      85      90      95
269 Arg His Gly Thr Tyr Tyr Gly Met Thr Thr Thr Gly Asp Ala Leu Asp
270      100     105     110
273 Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
274      115     120

```

277 <210> SEQ ID NO: 7

278 <211> LENGTH: 109

279 <212> TYPE: PRT

280 <213> ORGANISM: mus musculus

282 <400> SEQUENCE: 7

```

284 Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
285 1      5      10      15
288 Glu Arg Val Thr Met Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Asn
289      20      25      30
292 Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Ser Ala Pro Asn Leu Trp
293      35      40      45
296 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
297      50      55      60
300 Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
301 65      70      75      80
304 Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Tyr Leu Arg Ser Pro
305      85      90      95
308 Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
309      100     105

```

312 <210> SEQ ID NO: 8

313 <211> LENGTH: 109

314 <212> TYPE: PRT

315 <213> ORGANISM: artificial

317 <220> FEATURE:

318 <223> OTHER INFORMATION: humanized antibody

320 <400> SEQUENCE: 8

```

322 Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Met Ser Ala Ser Leu Gly
323 1      5      10      15
326 Asp Arg Val Thr Met Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Asn
327      20      25      30
330 Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Trp
331      35      40      45
334 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser
335      50      55      60
338 Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Met Gln
339 65      70      75      80
342 Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Tyr Leu Arg Ser Pro

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/724,274

DATE: 11/17/2004

TIME: 09:39:00

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw

```

343          85          90          95
346 Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
347          100          105
350 <210> SEQ ID NO: 9
351 <211> LENGTH: 109
352 <212> TYPE: PRT
353 <213> ORGANISM: artificial
355 <220> FEATURE:
356 <223> OTHER INFORMATION: humanized antibody
358 <400> SEQUENCE: 9
360 Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
361 1          5          10          15
364 Asp Arg Val Thr Met Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Asn
365          20          25          30
368 Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Trp
369          35          40          45
372 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser
373          50          55          60
376 Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Met Gln
377 65          70          75          80
380 Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Tyr Leu Arg Ser Pro
381          85          90          95
384 Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
385          100          105
388 <210> SEQ ID NO: 10
389 <211> LENGTH: 109
390 <212> TYPE: PRT
391 <213> ORGANISM: artificial
393 <220> FEATURE:
394 <223> OTHER INFORMATION: humanized antibody
396 <400> SEQUENCE: 10
398 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
399 1          5          10          15
402 Asp Arg Val Thr Ile Thr Cys Thr Ala Ser Ser Ser Val Ser Ser Asn
403          20          25          30
406 Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
407          35          40          45
410 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser
411          50          55          60
414 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
415 65          70          75          80
418 Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Tyr Leu Arg Ser Pro
419          85          90          95
422 Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
423          100          105
426 <210> SEQ ID NO: 11
427 <211> LENGTH: 109
428 <212> TYPE: PRT
429 <213> ORGANISM: artificial

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/17/2004
PATENT APPLICATION: US/10/724,274 TIME: 09:39:02

Input Set : A:\058820178NPUS01.ST25.txt
Output Set: N:\CRF4\11172004\J724274.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:2,3,4,5,6,8,9,10,11,12,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31
Seq#:32,33,34,35,36,37,38,39,40,41,42,43,44,45

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/724,274

DATE: 11/17/2004

TIME: 09:39:02

Input Set : A:\058820178NPUS01.ST25.txt

Output Set: N:\CRF4\11172004\J724274.raw